

Memorandum

*Flex your power!
Be energy efficient!*

To: HECTOR VALENCIA
Associate Engineering Geologist

Date: June 25, 2008

File: 04-249043
Drill Rig Hammer Evaluation

From: DEPARTMENT OF TRANSPORTATION
Division of Engineering Services
Geotechnical Services - MS 5

Subject: Standard Penetration Test Hammer Energy Measurements

Attached are the results of energy measurements performed on the SPT hammer associated with the new ACKER MPCA drill rig (C#7003711).

If you have any questions or comments regarding this report, please contact Toua Vang at (916) 227-1060.



BRIAN LIEBICH, P.E.
Senior Transportation Engineer
Foundation Testing Branch

Attachments SPT Hammer Calibration Sheet

C: H. Brimhall – ODS (Email)
L. Jensen – ODS (Email)
B. Komorniczak – ODS (Email)
D. Thomas – ODS (Email)
M. Richards – ODS (Email)

TV/JT

SPT HAMMER CALIBRATION

Drill Rig Type: ACKER MPCA Vehicle I.D.: C# 7003711
 SPT Hammer Operator: Automatic Drill Rod: AWJ

Drill Rig Type	C#	Test Date	Efficiency	N-Value Adjustment Factor,
ACKER MPCA	7003711	6/24/2008	68%	1.13

Where, Efficiency, $\eta = \frac{EMX}{ER}$ EMX = Measured Energy; ER = Rated (Potential) Energy


N-Value Adjustment Factor, $C_\eta = \frac{\eta}{60}$

SPT hammer efficiency and N-value adjustment factor for the above-referenced drill rig hammer were determined in general conformance with ASTM D 4633-05.



Toua Vang
 Transportation Engineer, Civil
 Foundation Testing Branch
 Office of Geotechnical Support



JAMES L. TA, P.E. 
 Associate M & R Engineer 06/25/08
 Foundation Testing Branch
 Office of Geotechnical Support

